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मानक

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IS 13720 (1993): Textile machinery and accessories -
Pressing roller assembly for jute spinning frame [TXD 14:
Machinery for Fabric Manufacture]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

वस्त्रादि मशीनरी एवं सहायकांग — पटसन कताई फ्रेम
के लिए दाबन रोलर समुच्चय — विशिष्ट

Indian Standard

TEXTILE MACHINERY AND ACCESSORIES —
PRESSING ROLLER ASSEMBLY FOR JUTE
SPINNING FRAME — SPECIFICATION

UDC 677.052.948.3/.4 : 677.13

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Jute Mill Machinery/Accessories and Spare Parts Sectional Committee, had been approved by the Textile Division Council.

The need to formulate standard on this subject has been felt in order to provide guidance to the manufacturers of pressing roller assembly for jute spinning frame. This standard would ensure the manufacture of pressing roller assembly of acceptable quality. This standard mainly covers the requirements of flange which is the main working part of the pressing roller assembly.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TEXTILE MACHINERY AND ACCESSORIES — PRESSING ROLLER ASSEMBLY FOR JUTE SPINNING FRAME — SPECIFICATION

1 SCOPE

This standard prescribes the requirements of pressing roller assembly for jute spinning frame.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard.

IS No.	Title
210 : 1978	Grey iron castings (<i>third revision</i>)
226 : 1975	Structural steel (standard quality) (<i>fifth revision</i>)
1586 : 1988	Methods for Rockwell hardness test for metallic materials (Scales A-B-C-D-E-F-G-H-I-J-K) (<i>second revision</i>)
2100 : 1970	Steel billets, bars and sections for boilers (<i>first revision</i>)
2500 (Part 1) : 1973	Sampling inspection tables : Part 1 Inspection by attributes and by count of defects (<i>first revision</i>)
3400 (Part 2) : 1980	Methods of test for vulcanized rubber : Part 2 Hardness (<i>first revision</i>)

3 MANUFACTURE

3.1 Pressing roller assembly shall consist of the following components:

- a) Flange;
- b) Boss;
- c) Axle;
- d) Housing for ball bearing; and
- e) Flange cot.

3.1.1 The various components of pressing roller assembly shall be so manufactured as to give the pressing roller assembly desired characteristics which would satisfy the requirements given subsequently.

3.2 Materials

3.2.1 *Flange* — cast iron conforming to grade FG 220 of IS 210 : 1978.

3.2.2 *Boss* — cast iron conforming to grade FG 220 of IS 210 : 1978.

3.2.3 *Axle* — mild steel conforming to IS 226 : 1975.

3.2.4 *Housing for Ball Bearing* — low carbon steel (*see* Grade 1 of IS 2100 : 1970).

3.2.5 *Flange Cot* — hardness of rubber shall be 85 ± 5 IRHD (same as shore A hardness) when tested as per IS 3400 (Part 2) : 1980.

4 DIMENSIONAL REQUIREMENTS

4.1 Nominal Dimensions

The nominal dimensions shall be in accordance with the agreement between the manufacturer and the purchaser. In the absence of any agreement these shall be declared by the manufacturer.

4.2 Tolerances

The nominal dimensions shall be subject to the following tolerances (*see* Fig. 1):

Dimensions	Tolerance, mm
Outside diameter, D_1	± 0.40
Inside recess diameter, D_2	$+ 0.20$ $- 0.05$
Width of flange (<i>A</i>)	± 0.40
Width of rib (<i>B</i>)	$+ 0.80$ $- 0$
Cot, cover to finish	± 0.80
Distance between the centre lines of two rubber cot faces	± 1.00
Diameter of the groove at the middle of the boss	$+ 0.5$ $- 0$

5 WORKMANSHIP AND FINISH

5.1 Assembly shall be able to run freely without generating any excessive frictional heat.

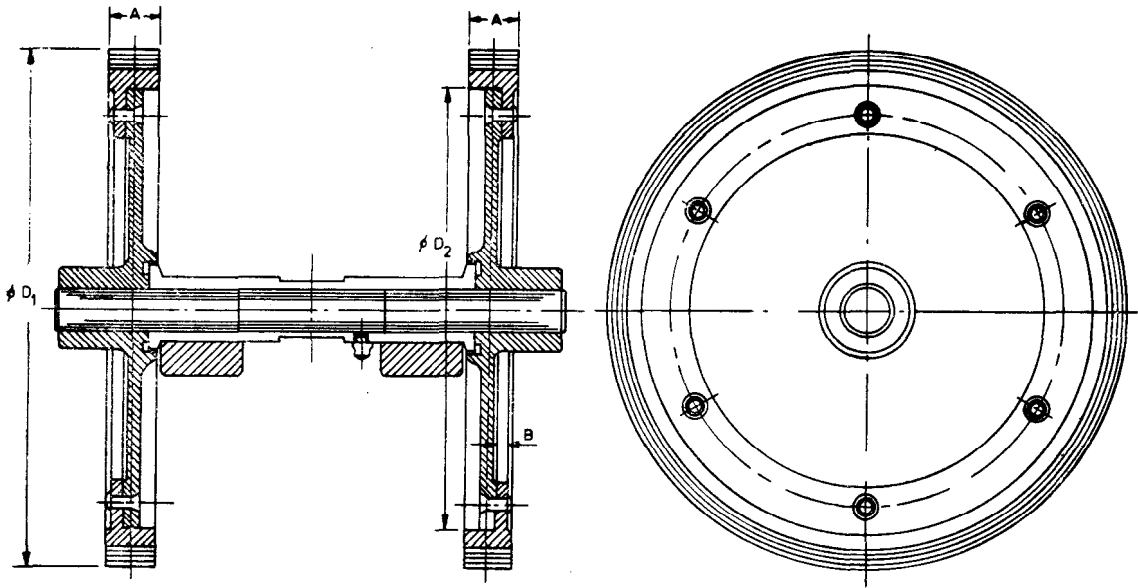


FIG. 1 PRESSING ROLLER ASSEMBLY FOR JUTE SPINNING FRAME

5.2 The axle shall be heat treated for achieving hardness of $45 \pm \text{HRC}$ when tested in accordance with IS 1586 : 1988.

5.3 The various components shall have interchangeability with the components manufactured by the same manufacturer.

5.4 There shall not be any wobble when various components are assembled to form assembly and the flange is set in motion.

6 MARKING

6.1 Each pressing roller assembly shall be legibly marked with the indication of the source of manufacture.

6.1.1 The pressing roller assembly may also be marked with the Standard Mark.

7 PACKING

7.1 The pressing roller assembly shall be suitably packed to ensure complete protection from rust.

8 SAMPLING AND CRITERIA FOR CONFORMITY

Unless otherwise agreed to between the purchaser and the manufacturer to ascertain the conformity of the pressing roller assembly for jute spinning frame to the requirements of this specification, single sampling plan with Inspection Level I and Acceptance Quality Level (AQL) of 1.5 percent given in Tables 1 and 2 of IS 2500 (Part 1) : 1973 shall be followed.

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